ABSTRACT

Methods and systems are described that permit efficient processing of user-defined multi-media editing projects that combine multiple different source data streams into a single compressed data stream that represents the project. The described approaches are directed to ensuring that those compressed source data stream portions that need to be uncompressed for processing are uncompressed and processed, while those compressed source data stream portions that do not need to be uncompressed are not uncompressed. In one embodiment, a unique switch assembly is provided comprising one or more switches each of which being configured to process data streams. The switch assembly is configured to process both compressed and uncompressed data streams to provide the single compressed output data stream. In one embodiment, three software-implemented switches are provided—one for handling uncompressed source data streams, one for handling compressed source data streams, and one for processing the output of the first two switches to provide the single compressed data stream.